

DETAILED ACTION

Response to Argument

There were some typographical errors in the office action and Notice Reference cited for Hashimoto reference sent on 3/29/2010. The Previous Non-final office action is vacated. The office action with correction for typographical errors will be reissued to reset the time period.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows (see also MPEP 2106):

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. *O'Reilly*, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

... a signal does not fall within one of the four statutory classes of Sec. 101.

... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

Claims 5 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 12 is drawn to functional descriptive material recorded on a computer-readable storage medium. The specification define recording medium as a magnetic disk (including flexible disks), optical disk (including CD-ROM (compact disk read only memories), DVD (digital versatile disks)), optical magnetic disk (including MD (registered trademark (Mini-Disk))), semiconductor memory or the like. With broadest reasonable interpretation, "or the like" includes *non-statutory* subject matter such as a "signal" or "carrier wave".

"A transitory, propagating signal ... is not a "process, machine, manufacture, or composition of matter." Those four categories define the explicit scope and reach of subject matter patentable under 35 U.S.C. § 101; thus, such a signal cannot be patentable subject matter." (*In re Nuijten*, 84 USPQ2d 1495 (Fed. Cir. 2007)).

Because the full scope of the claim as properly read in light of the disclosure appears to encompass non-statutory subject matter (i.e., because the specification defines/exemplifies a computer readable medium as a non-statutory signal, carrier waver, etc.) the claim as a whole is non-statutory. The examiner suggests amending the claim to include the disclosed non transitory tangible computer readable storage media, while at the same time excluding the transitory intangible transitory media such as signals, carrier waves, etc. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

A. Claim(s) 1-9 are rejected under 35 U.S.C. 102(a) as being anticipated by Aoyama et al. (WO 2004/019607) ((US 2009/0046179) is used as translation)).

With respect to claim 1, Aoyama et al. teach a region setting step for carrying out the partitioning so that the regions do not contain a straight line passing through an origin in the horizontal direction and a straight line passing through the origin in the vertical direction (para [0198], Fig. 18B), wherein the above step is performed by a processor (Fig. 1 ref label 10).

With respect to claim 2, Aoyama et al. teach a first setting step for carrying out the partitioning at a default size (uniform split); and second setting step for further

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partitioning first regions set in the first setting step when the first regions contain the straight line passing through the origin in the horizontal direction or the straight line passing through the origin in the vertical direction, so that neither of the straight lines is contained (para. [0197] - [0202]; Fig. 18B).

With respect to claim 3, Aoyama et al. teach a first setting step for carrying out the partitioning at a default size (uniform split); and a second setting step for changing the size of all the first regions set in the first setting step when any of the first regions contain the straight line passing through the origin in the horizontal direction or the straight line passing through the origin in the vertical direction, so that all the first regions do not contain the straight lines (para. [0197] - [0202]; Fig. 18B).

With respect to claim 4, please refer to rejection for claim 1.

With respect to claim 5, please refer to rejection for claim 1.

With respect to claim 6, please refer to rejection for claim 2.

With respect to claim 7, please refer to rejection for claim 3.

With respect to claim 8, please refer to rejection for claim 2.

With respect to claim 9, please refer to rejection for claim 3.

B. Claim(s) 1, 4 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Hashimoto (US Patent 7,565,004).

With respect to claim 1, Hashimoto teaches a region setting step for carrying out the partitioning so that the regions do not contain a straight line passing through an origin in the horizontal direction and a straight line passing through the origin in the vertical direction (Fig. 6) wherein the above step is performed by a processor (col. 1 lines 6-9).

With respect to claim 4, please refer to rejection for claim 1.

With respect to claim 5, please refer to rejection for claim 1.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RANDOLPH CHU whose telephone number is (571)270-1145. The examiner can normally be reached on Monday to Thursday from 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on 571-272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Randolph Chu/

Examiner, Art Unit 2624